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Air Liquide

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**OFFICIAL**

**To:** Examiner Fortuna, Jose A.      **From:** Christopher J. Cronin  
**Fax:** 703-872-9306      **Date:** June 22, 2004  
**Phone:** (571)272-1188      **Pages:** 13 (inc. cover page)  
**Re:** U.S. Patent Application Serial Number      **Seri #:** S5627  
10/003,912

**Urgent**     **For Review**     **Please Comment**     **Please Reply**     **Please Recycle**

**\*Comments:**

**OFFICIAL COMMUNICATION**

Dear Examiner Fortuna,

Please enter the enclosed submission in full response to the Office Action of January 22, 2004. If you have any questions, I may be reached at the above telephone number.

Best regards,

Christopher J. Cronin  
Reg. No. 46,513

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PTO/SB/21 (02-04)

Approved for use through 07/31/2006, OMB 0651-0031

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**TRANSMITTAL  
FORM**

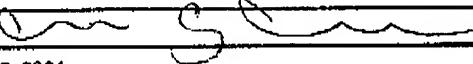
(to be used for all correspondence after initial filing)

<b>TRANSMITTAL FORM</b>  (to be used for all correspondence after initial filing)	Application Number	10/003,912	
	Filing Date	October 31, 2001	
	First Named Inventor	Frederick W. Giacobbe	
	Art Unit	1731	
	Examiner Name	Jose A. Fortuna	
Total Number of Pages in This Submission	13	Attorney Docket Number	S5627

**ENCLOSURES (Check all that apply)**

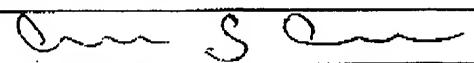
<input checked="" type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input checked="" type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input checked="" type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/ Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation <input type="checkbox"/> Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____  <input type="checkbox"/> Remarks	<input type="checkbox"/> After Allowance communication to Technology Center (TC) <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): fax cover sheet
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**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT**

Firm or Individual name	Christopher J. Cronin Reg. No. 46,513
Signature	
Date	June 22, 2004

**CERTIFICATE OF TRANSMISSION/MAILING**

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

Typed or printed name	Christopher J. Cronin, Reg. No. 46,513		
Signature		Date	June 22, 2004

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PTO/SB/17 (10-03)

Approved for use through 07/31/2008. OMB 0651-0032  
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# FEE TRANSMITTAL for FY 2004

Effective 10/01/2003. Patent fees are subject to annual revision.

 Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$ 736.00)

## Complete if Known

Application Number	10/003,912
Filing Date	October 31, 2001
First Named Inventor	Frederick W. Giacobbe
Examiner Name	Jose A. Fortuna
Art Unit	1731
Attorney Docket No.	Serie 5627

## METHOD OF PAYMENT (check all that apply)

 Check  Credit card  Money Order  Other  None
 Deposit Account:

Deposit Account Number: 01-1375  
Deposit Account Name: Air Liquide

The Director is authorized to: (check all that apply)

- Charge fee(s) indicated below  Credit any overpayments  
 Charge any additional fee(s) or any underpayment of fee(s)  
 Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.

## FEE CALCULATION

## 1. BASIC FILING FEE

Large Entity	Small Entity	Fee Code (\$)	Fee	Fee Code (\$)	Fee Description	Fee Paid
1001 770	2001 385				Utility filing fee	
1002 340	2002 170				Design filing fee	
1003 530	2003 265				Plant filing fee	
1004 770	2004 385				Reissue filing fee	
1005 160	2005 80				Provisional filing fee	
SUBTOTAL (1) (\$)						

## 2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

Total Claims	Independent Claims	Multiple Dependent	Extra Claims below	Fee Paid
			-20** = 8 X 18 = 144	
			- 3** = 2 X 86 = 172	

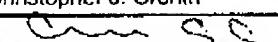
Large Entity	Small Entity	Fee Description
1202 18	2202 9	Claims in excess of 20
1201 86	2201 43	Independent claims in excess of 3
1203 290	2203 145	Multiple dependent claim, if not paid
1204 86	2204 43	** Reissue independent claims over original patent
1205 18	2205 9	** Reissue claims in excess of 20 and over original patent
SUBTOTAL (2) (\$ 316		

\*\* or number previously paid, if greater. For Reissues, see above

## 3. ADDITIONAL FEES

Large Entity	Small Entity	Fee Description	Fee Paid
1051 130	2051 65	Surcharge - late filing fee or oath	
1052 50	2052 25	Surcharge - late provisional filing fee or cover sheet	
1053 130	1053 130	Non-English specification	
1812 2,520	1812 2,520	For filing a request for ex parte reexamination	
1804 920*	1804 920*	Requesting publication of SIR prior to Examiner action	
1805 1,840*	1805 1,840*	Requesting publication of SIR after Examiner action	
1251 110	2251 55	Extension for reply within first month	420.00
1252 420	2252 210	Extension for reply within second month	
1253 950	2253 475	Extension for reply within third month	
1254 1,480	2254 740	Extension for reply within fourth month	
1255 2,010	2255 1,005	Extension for reply within fifth month	
1401 330	2401 165	Notice of Appeal	
1402 330	2402 165	Filing a brief in support of an appeal	
1403 290	2403 145	Request for oral hearing	
1451 1,510	1451 1,510	Petition to institute a public use proceeding	
1452 110	2452 55	Petition to revive - unavoidable	
1453 1,330	2453 665	Petition to revive - unintentional	
1501 1,330	2501 665	Utility issue fee (or reissue)	
1502 480	2502 240	Design issue fee	
1503 640	2503 320	Plant issue fee	
1460 130	1460 130	Petitions to the Commissioner	
1807 50	1807 50	Processing fee under 37 CFR 1.17(q)	
1806 180	1806 180	Submission of Information Disclosure Stmt	
8021 40	8021 40	Recording each patent assignment per property (times number of properties)	
1809 770	2809 365	Filing a submission after final rejection (37 CFR 1.129(a))	
1810 770	2810 385	For each additional invention to be examined (37 CFR 1.129(b))	
1801 770	2801 385	Request for Continued Examination (RCE)	
1802 900	1802 900	Request for expedited examination or design application	
Other fee (specify) _____			
*Reduced by Basic Filing Fee Paid		SUBTOTAL (3) (\$ 420.00	

(Complete if applicable)

SUBMITTED BY	(Complete if applicable)		
Name (Print/Type)	Christopher J. Cronin	Registration No. / Attorney/Agent	46,513 Telephone 708-579-7925
Signature		Date	June 22, 2004

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This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Application No. 10/003,912  
Amendment dated June 22, 2004  
Reply to Office Action of January 22, 2004



Christopher J. Cronin  
Registration No. 46,513

Date: June 22, 2004

Air Liquide  
5230 S. East Ave.  
CountrySide, IL 60525  
(708) 579-7925 Phone  
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**CERTIFICATE OF TRANSMISSION UNDER 37 CFR 1.8(a)**

I hereby certify that this correspondence is being transmitted via facsimile  
to telephone number 703-872-9306 on this 22nd day of June, 2004.



Christopher J. Cronin  
Registration Number 46,513